

REMARKS

Claims 1-38 and 41-102 are present in this application. Claims 39 and 40 have been canceled. Claims 1, 37, and 73 are independent.

Allowable Subject Matter

Applicants wish to thank the Examiner for indicating that claims 73-82 and 84-96 are allowed, and that claims 16, 18, 20-24, 32-36, 38, 52, 54, 56-60, 68-72 would be allowable if rewritten into independent form.

Drawings

The drawings have been objected to for not showing “the fourth antenna pattern” of claims 17, 53, and 83. Applicants respectfully traverse this rejection.

Claims 17, 53, and 83 pertain to embodiments, such as the sixth embodiment described in paragraphs 0050 through 0053. The claims cover the embodiment shown in Figures 16A and 16B, for example. The use of the label “fourth” is to distinguish the claimed “antenna patterns” from other claimed antenna patterns, and to prevent confusion with “third antenna patterns” recited in other claims. Thus, Applicants submit that the drawings do show the features recited in claims 17, 53, and 83. Applicants request that the objection to the drawings be reconsidered and withdrawn.

Claim Objection

Claims 31, 32, 35, 67, 68, 71, 97, 98, and 101 are objected to for the phrase “a circuit board.” Applicants have amended these claims to clarify that the additional circuit board recited in the claims is for mounting a circuit element, such that the circuit element and the antenna pattern are formed on different circuit boards. Applicants request that the objection be reconsidered and withdrawn.

Claim Rejection – 35 U.S.C. § 112

Claim 30 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Accordingly, claim 30 has been amended to provide proper antecedent basis for “the circuit element.” Applicants request that the rejection be reconsidered and withdrawn.

Claim Rejection – 35 U.S.C. § 102; Flint

Claims 1-3, 5-11, 15, 19, 26-31, 37, 39, 41-47, 51, 55, and 62-67 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,686,886 (Flint). Applicants respectfully traverse this rejection.

Claim 1 is directed to a feature that the second antenna pattern surrounds the first antenna element, which has the feeding pattern.

The Office Action relies on Figures 7 and 9 of Flint to teach features of the claimed invention. Figure 7 of Flint shows an inverted L antenna surrounded by an inverted F antenna, serving as the driven antenna. The arrangement shown in Figure 7 may be considered as opposite

to the configuration of Figure 1 of the present application. In order to clarify this distinction, claim 1 has been amended to explicitly express that the first antenna element is the antenna pattern closer to the grounding conductor portion than the second antenna pattern.

Claim 37 has been amended to incorporate the subject matter of claim 39, including that the second antenna pattern is an inverted-L-shaped antenna pattern not having a connection to the grounding conductor portion. Unlike the claimed second antenna pattern, Flint's driven antenna pattern is an inverted F-pattern 702, 705, 703, having a connection 702 to ground plate 701, or alternatively a slot antenna (col. 2, lines 13-14).

Applicants request that the rejection be reconsidered and withdrawn.

Claim Rejection – 35 U.S.C. § 102(e); Andersson

Claims 1, 4, 12-14, 25, 37, 40, 48-50, and 61 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Application 2005/0110692 (Andersson). Applicants respectfully traverse this rejection.

Claim 1 is directed to a feature that the second antenna pattern surrounds the first antenna element, which has the feeding pattern.

The Office Action states that Andersson's antenna pattern (2) is surrounded by antenna pattern (5). Applicants submit that Andersson shows a main radiating pattern 2, serving as a driven element (at feeding point 3) surrounding parasitic elements 5 and 6. The main radiating pattern is an L-shaped antenna pattern having a meandered member 9 at its end point. The parasitic elements are each L-shaped patterns.

Applicants submit that the relationship of the main radiating pattern 2 relative to the element 5 may be considered to be opposite to the claimed invention. In order to clarify this distinction, claim 1 has been amended to explicitly express that the first antenna element is the antenna pattern closer to the grounding conductor portion than the second antenna pattern.

Claim 37 has been amended to incorporate the subject matter of claim 39, rendering the rejection moot. Claim 37 has been amended to include that the first antenna pattern is formed as a loop-type antenna pattern and the second antenna pattern is formed as an inverted-L-shaped antenna pattern. Unlike the claimed first antenna pattern, Andersson's parasitic antenna patterns are L-shaped.

Applicants request that the rejection be reconsidered and withdrawn.

Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 25, 2005

Respectfully submitted,

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